at 27° C. (80° F.). Whether these assumptions are correct cannot
be determined without further research.

In the foregoing, a checker work of square passes has been assumed. The method of arriving at the heating surface of the usual checker construction is somewhat similar to the above.

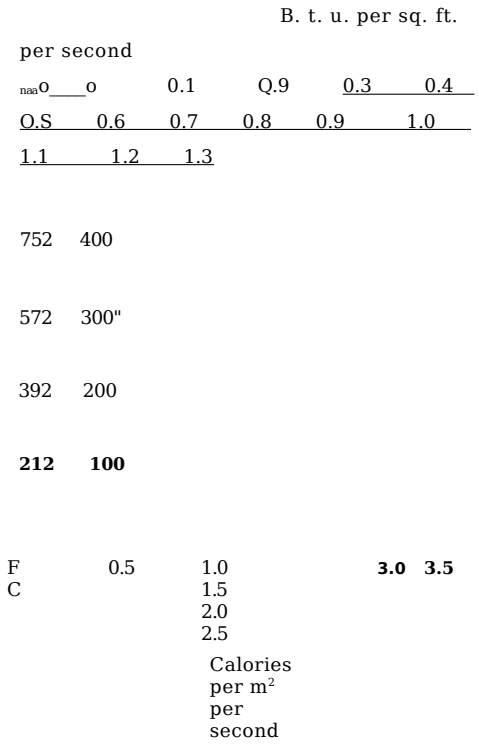

FIG. 165.—Curve of Heat Loss from Exterior Walls of Furnaces According to Experiments of Charles R. Darling.

The bricks occupy 0.5526 of the volume and the pass 0.4474;
hence the number of rows per meter will be

$$n_b = 552.6 - ^{63}$$

==8.771 rows

or 0.5526-^0.21 =

2.63 rows per foot.

The gauge or space

between the rows of brick will be

$$b_0 = 447.4 - f - 8.771 =$$

51 mm (about 2 in)

or $0.4474 \div 2.63 =$

0.17 ft (about 2 in).

From these figures the heating surface per square meter, or per square foot, may be readily computed, as well as all of the other data necessary to determine the sizes of the checker cham-